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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/038,877	12/31/2001	Tong Sun	KCC 4781 (K.C. No. 17,028)	6437 9
321	7590	05/23/2003	EXAMINER	
SENNIGER POWERS LEAVITT AND ROEDEL ONE METROPOLITAN SQUARE 16TH FLOOR ST LOUIS, MO 63102			HALPERN, MARK	
ART UNIT		PAPER NUMBER		
				1731

DATE MAILED: 05/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/038,877	SUN ET AL.
	Examiner Mark Halpern	Art Unit 1731

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM  
 THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) Responsive to communication(s) filed on 24 March 2003.

2a) This action is **FINAL**.      2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) Claim(s) 1,6-10,12-23 and 26-28 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) 26-28 is/are allowed.

6) Claim(s) 1,6,7,10,12-17 and 20-23 is/are rejected.

7) Claim(s) 8,9 and 18,19 is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.  
 If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
 \* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
 a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ .
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>8</u> .	6) <input type="checkbox"/> Other: _____ .

## DETAILED ACTION

1) Acknowledgement is made of Amendment received 3/24/2003, Paper No. 8. Applicants amend claims 1, 6-10, 12, 15, cancel claims 2-5, 11, 24-25, and offer new claims 26-28, for consideration.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2) Claims 1, 6-7, 10, 12-17, 20-23, are rejected under 35 U.S.C. 103(a) as being unpatentable over Frisch (2,644,750) in view of Shannon (6,488,812).

Claims 1, 10, 12-13, 15, 20-22: Frisch discloses a process of making paper wherein boric acid is added to the aqueous suspension of fibers prior to the formation of a web (col. 1, line 5 to col. 2, line 12). A sheet is formed and then dried (col. 3, lines 1-5, and col. 5, line 68 to col. 6, line 19). Frisch fails to disclose that the web is dried by heated gas, air, having a temperature of at least 190 °C. Shannon discloses a process for making a tissue, wherein air drying of formed web is performed at about 390 °F (about 199 °C) (Shannon, col. 14, lines 15-36). It would have been obvious, to one skilled in the art at the time the invention was made, to combine the teachings of Frisch and Shannon, because such a combination would provide quality drying of the formed

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web in the design of Frisch, since Shannon teaches of 99 % consistency of the final dried product.

Claims 6-7, 16-17: the pH after the addition of boric acid is between about 3 and 10 (Frisch, col. 3, lines 45-50).

Claims 14, 23: Shannon discloses the use of secondary cellulosic fibers such as broke or repulped fibers (Shannon, col. 15, lines 45-50).

***Allowable Subject Matter***

- 3) Claims 26-28, are allowed.
- 4) Claims 8-9, 18-19, are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

The primary reason for indicating allowable subject matter is that the cited prior art does not show a process for manufacturing a cellulosic paper wherein boric acid is added to the suspension in the amount claimed (claims 8, 18, 26).

***Response to Amendment***

- 5) Claims 1-7, 14, rejection under 35 U.S.C. 102(b) as being anticipated by Gomez (4,487,657), is withdrawn in view of amended and cancelled claims.

6) Claims 24-25, rejection under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Gomez, is withdrawn in view of cancelled claims.

***Conclusion***

7) Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Halpern whose telephone number is 703-305-4522. The examiner can normally be reached on Mon-Fri, (9:00-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 703-308-1164. The fax phone numbers

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for the organization where this application or proceeding is assigned are 703-308-7718  
for regular communications and 703-305-3599 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or  
proceeding should be directed to the receptionist whose telephone number is 703-308-  
0651.

MH

Mark Halpern  
Patent Examiner  
Art Unit 1731

May 19, 2003

*Steven P. Griffin*  
STEVEN P. GRIFFIN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700